

Agency: Commerce, Community and Economic Development**Grants to Named Recipients (AS 37.05.316)****Grant Recipient: Homer Electric Association****Federal Tax ID:****Project Title:****Project Type:** Equipment and Materials

Homer Electric Association - Wind Generation Project

State Funding Requested: \$7,000,000
One-Time Need**House District:** 35 / R**Brief Project Description:**

Build a 5 megawatt generation facility that would assist in providing spinning reserve and frequency regulation services for the Kenai Winds renewable energy project.

Funding Plan:**Total Cost of Project:** \$7,000,000*There is no other funding needed***Detailed Project Description and Justification:**

The plans are for Homer Electric to build a 5 megawatt generation facility that would assist in providing spinning reserve and frequency regulation services for the Kenai Winds renewable energy project. With the development of a mutually agreed upon Power Sales Agreement, the addition of a wind following resource, such as a reciprocating gas generator or battery, could bring this "shovel ready" project on line before the end of 2010. With completion of this project, Homer Electric will have a utility scale renewable project on the Kenai Peninsula.

This project is being coordinated with the Kenai Winds LLC, a subsidiary of AXIO Power and Homer Electric Association (HEA), has been participating in efforts to install a 14.4 MW wind farm near the Agrium facility in Nikiski, Alaska since the early summer of 2009. The proposed wind farm would be owned and operated by Kenai Winds, and its energy output purchased by HEA.

Project Timeline:

Funds will be used immediately.

Entity Responsible for the Ongoing Operation and Maintenance of this Project:

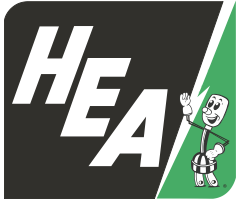
Homer Electric Association, Inc.

Grant Recipient Contact Information:

Name: Rick Eckert
Address: 3977 Lake Street
Homer, AK 99603, AK 99603
Phone Number: (907)235-3353
Email: reckert@homerelectric.com

Has this project been through a public review process at the local level and is it a community priority? ☐ Yes ☒ No

**\$7,000,000
Approved**



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March 18, 2010

Representative Mike Chenault
Speaker of the House
State Capitol Room 208
Juneau AK, 99801

Dear Speaker Chenault:

Thank you for taking the time to meet with representatives from Homer Electric Association earlier this month. We realize how busy you are and appreciate having the opportunity to talk with you about issues important to the cooperative.

I have included some back up material regarding the requests for state assistance that we discussed in our meeting on March 9.

Our first request is for \$7 million to build a 5 megawatt generation facility that would assist in providing spinning reserve and frequency regulation services for the Kenai Winds renewable energy project. With the development of a mutually agreed upon Power Sales Agreement, the addition of a wind following resource, such as a reciprocating gas generator or battery, could bring this "shovel ready" project on line before the end of 2010. Homer Electric is very excited about the possibility of having a utility scale renewable project on the Kenai Peninsula. We realize the funding request came late in the session, but believe this project is worthy of consideration. Please let me know if there is anything I can do on my end to support this request.

The second request is for \$500,000 to assist in the clearing of beetle-killed trees that are outside of HEA's right-of-way, but continue to pose a threat to power lines. The Legislature has funded this request in the past, but unfortunately the appropriations were vetoed by Governor Murkowski and Governor Palin. We are hopeful that the funds can again be included in the State capital budget and be approved by Governor Parnell.

Once again, thank you and your staff for the on-going work you do on behalf of all your constituents.

Sincerely,

Bradley P. Janorschke
General Manager



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26th Alaska Legislature

Second Session

January 19, 2010 – April 18, 2010

Homer Electric Association looks forward to working with Governor Parnell and the 26th Alaska Legislature on all matters related to the electric utility industry.

Historically, Homer Electric has enjoyed a very positive relationship with the Kenai Peninsula legislative delegation. This partnership has resulted in state funding for projects that have benefitted all Homer Electric members. The support we have received is greatly appreciated.

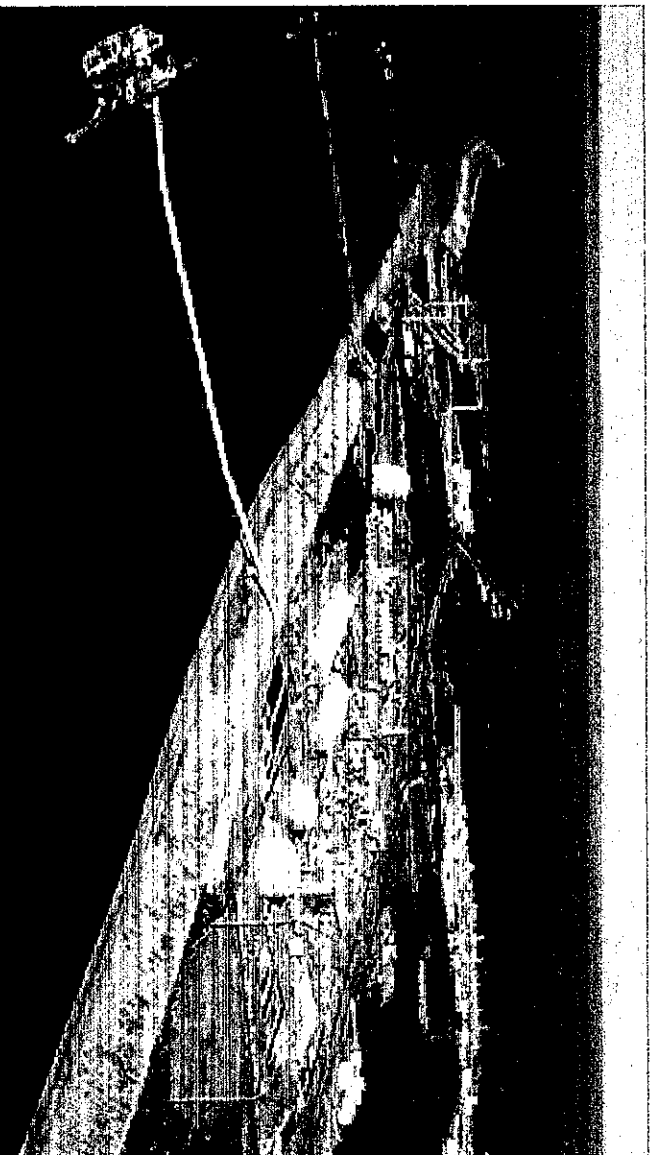
During the 2010 legislative session, Homer Electric will focus on two legislative initiatives;

- **Kenai Winds** - Homer Electric is seeking a \$7 million appropriation to build a 5 megawatt generation facility that would provide spinning reserve for the Kenai Winds renewable energy project. The wind project has the potential to produce 14.4 megawatts of wind power and is "shovel ready".
- **Hazard Tree Removal Project** - \$500,000 to continue the effective, on-going removal of beetle killed trees, many which are outside of the utility right-of-way, but still present a hazard to the electric facilities.

The following pages include a description of the projects and additional information regarding the request for state assistance.

In addition, the packet also contains a summary of Homer Electric's power generation plan, Independent Light.

As always, Homer Electric is very grateful for the opportunity to work with the Legislature and Administration on these important issues.



Kenai Winds and HEA Proposed 14.4 MW Wind Farm at Nikiski

Kenai Winds LLC, a subsidiary of AXIO Power and Homer Electric Association (HEA), has been participating in efforts to install a 14.4 MW wind farm near the Agrium facility in Nikiski, Alaska since the early summer of 2009. The proposed wind farm would be owned and operated by Kenai Winds, and its energy output purchased by HEA. Since the inception of negotiations, a Memorandum of Understanding was secured in July, 2009, preliminary engineering studies were completed in October and a Power Purchase Agreement is now being formulated. AXIO Power is an experienced renewable energy provider and has installations in the United States ranging from New York to Hawaii. The Nikiski wind farm would be their first in Alaska.

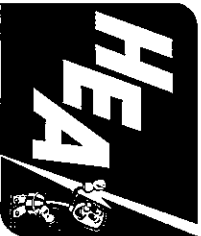
Aside from their resources, Kenai Winds has already secured substantial funding from the Alaska Energy Authority (AEA) with which to proceed; and AEA deems this a very viable project. The total project cost is approximately \$30M. Sufficient preliminary work by HEA and Kenai Winds has been accomplished so efforts could commence to realize an on-line status of the wind farm in 2010 if a few remaining hurdles can be addressed.

A host of physical factors advocate the Nikiski site as particularly well-suited for a wind farm. Among them are the near proximity of a transmission line; an idle existing substation (formerly serving the Agrium facility) requiring minimal alteration for interconnection; an industrial zone within which the wind towers would not create any objectionable visual intrusion; an ease of logistics provided by on-site docking/landing capabilities for large equipment that would otherwise be problematic for long highway transport; and favorable winds that would achieve a capacity factor of 25 to 30 percent.

The sum of these attributes recommends the Nikiski site as quite possibly the best location for the next commercial-sized wind farm in Alaska.

However, the largely unpredictable nature of wind creates some difficult integration challenges for utilities and the unique circumstance of the Railbelt make this especially true. To ensure a reliable level of high quality electrical service to its members, a utility must have the appropriate generation resources with which to balance wind. These resources must be capable of immediate response and adequate flexibility to follow the fluctuations of wind power. Reciprocating gas or diesel generators and large battery banks have been successfully used elsewhere to provide the means for wind following. Railbelt utilities have not yet had the need to install such dedicated generation and these resources therefore do not exist on the Alaska grid. The sole purpose and expense of this wind-requisite resource poses a major financial hurdle for individual utilities on the Railbelt to incorporate wind power. A 5 MW reciprocating generator, or a battery bank of commensurate energy, would improve H&E's ability to successfully integrate the wind project into the existing grid. The installation cost for such capability is about seven million dollars.

With the development of a mutually agreed upon Power Sales Agreement, the addition of a wind following resource, such as a reciprocating gas generator or battery, could bring this "shovel ready" project on-line before the end 2010.



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HEA Proposed Wind Farm at Nikiski

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With the development of a mutually agreed upon Power Sales Agreement with an Independent Power Producer, the addition of a wind following resource, such as a reciprocating gas generator or battery, could bring this "shovel ready" project on-line before the end 2010. In the event that a Power Sales Agreement cannot be reached with an Independent Power Producer, Homer Electric Association is prepared to use the \$7 million state appropriation, along with loan funds, and move forward with the construction of its own wind generation project in the Nikiski area.